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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/773,574	YI ET AL.
	Examiner	Art Unit	
	Brad T. Mace	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-44* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10,15-16, 21-44* is/are rejected.

7)☒ Claim(s) *11-14 and 17-20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 February 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Specification

1.   The abstract of the disclosure is objected to because it is unclear as to what CA-ICH and CD-P stand for. Correction is required. See MPEP § 608.01(b).

2.   The disclosure is objected to because of the following informalities: Figure 2 was not described in the "Background of the related art". On pg.13 on line 5, 32 should be 16? On line 4 of pg. 15, the sentence is incomplete.   On line 13 of pg. 15, "long,n" of "Clong,n" should be subscripted. There is an unknown symbol on line 4 of pg. 21 and line 4 of pg. 29. Line 17 of pg. 37 CD#0-CD#3 should be mapped to Set#0, and CD#4-7 should map to Set#1. There appears to be multiple discrepancies between CD-ICH, CD-AICH and CA-ICH, CA-AICH throughout the specification. Appropriate correction is required.

Drawings

3.   The drawings are objected to because the Related Art label should be removed from Figure 6. Figure 10 shows "CA-ICH signature" whereas the specification states "CA-AICH". Figure 12 shows "CA-ICH signature" whereas the specification states "CA-AICH". Figures 13, 14, and 15 show CA-ICH, should it be CA-AICH? Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be

canceled, the appropriate figure must be removed from the replacement sheet, and

where necessary, the remaining figures must be renumbered and appropriate changes

made to the brief description of the several views of the drawings for consistency.

Additional replacement sheets may be necessary to show the renumbering of the

remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in

the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the

drawing figures. If the changes are not accepted by the examiner, the applicant will be

notified and informed of any required corrective action in the next Office action. The

objection to the drawings will not be held in abeyance.

Claim Objections

4.   Claims 1, 6, 7, 9, 12, 15, and 24 are objected to because of the following

informalities: In claim 1, line 5, CPCH should be CPCHs. In claim 6, line 7, it is unclear

what is meant by "whatever". In claim 6, line 11, base station lacks antecedent basis

(should be mobile station?). In claim 6, line 11 should include: from the system to the

"respective mobile station having the CD-P with the highest power" through the CD-

AICH. In claim 7, line 3, there needs to be a space between "CD-P" and "is". In claim

8, line 5, base station lacks antecedent basis (should be mobile station?). In claim 8,

line 5 should include: from the system to the "respective mobile station having the CD-

P with the highest power" through the CD-AICH if a collision has occured. In claim 9,

line 5, presample should be preamble. In claim 9, line 6, there should be a comma after

"CPCH" and also on line 6, there appears wording is missing after "CPCH". In claim 9,

line 7, it is unclear as to what "OVSF" stands for. In claim 9, lines 10-11 should read

"mobile station to the system", not "system to the mobile station". In claim 12, line 1

should read: the mobile station selects "a code". In claim 12, line 4 should read: among

"a plurality of codes" of a down branch. In claim 14, "minimum spreading factor" lacks

antecedent basis. In claim 15, lines 15-16, channelization codes lacks antecedent basis

(should there be wording before channelization?). In claim 17, "divided" should be

written between "the" and "chip" on line 3. In claim 24, line 6, CP-P should be CD-P.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

6.   Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention. " Whatever" on line 7 of claim 6 renders the claim indefinite. In

addition, lines 7-11 of claim 6 are confusing because commas and words such as "and"

appear to be missing.

Claim Rejections - 35 USC § 102

7.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

8.   Claims 1, 3, 4, 5, 6, 7, 8, 22, 23, 35, 36, 37, 43, and 44, are rejected under 35

U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,480,525 (Parsa et al.).

Regarding claim 1:

9.   Parsa et al. discloses a method of transmitting a message through a common

packet channel (CPCH) in a mobile communication system comprising receiving status

information of each of a plurality of CPCHs from the system (col. 6, lines 30-32),

selecting one of the plurality of CPCHs, based on the status information (col. 7, lines 29-

32), transmitting a signature to the system to request allocation of the selected CPCH,

where the signature has one-to-one correspondence to each of a plurality of scrambling

codes for the CPCH (col. 7, lines 58-62 and col. 6, line 50 where a physical channel

uses the same scrambling codes, thus scrambling codes are associated with the

channel, and thus associated with the signature), receiving a channel allocation

indicator from the system (col. 6, lines 44-46), and transmitting a message to the

system through at least one allocated CPCH (col. 7, lines 29-32, hence once CPCH is

allocated, packet is transmitted).

Regarding claim 3:

10.   Parsa et al. discloses wherein the signature used to request allocation of a

CPCH comprises an access preamble part of the CPCH (col. 7, lines 58-62).

Regarding claim 4:

11.   Parsa et al. discloses wherein each of the plurality of scrambling codes is used to

scramble message parts of the CPCH (col. 6, line 50, where it is known that scrambling

codes are used to scramble messages transmitted by the CPCH, hence the word

"scrambling").

Regarding claim 5:

12.   Parsa et al.discloses a method for allocating common packet channels (CPCH)

comprising transmitting status information of a plurality of CPCHs from a system to at

least one mobile station (col. 6, lines 30-32), selecting one of the plurality of CPCHs

based on the status information (col. 7, lines 29-32), and transmitting an access

preamble (AP) with a signature from the at least one mobile station to the system to

request allocation of the selected CPCH (col. 7, lines 58-62), the signature mapping

with at least one scrambling code (col. 7, lines 58-62 and col. 6, line 50 where a

physical channel uses the same scrambling codes, thus scrambling codes are

associated with the channel, and thus associated with the signature), and transmitting a

message from the mobile station to the system through at least one available physical

channel using the at least one scrambling code of the CA-ICH (col. 7, lines 29-32,

hence once CPCH is allocated, packet is transmitted, and col. 6, lines 46-49, hence the

channels are associated with the scrambling codes, thus the CA-ICH is associated with

at least one scrambling code).

Regarding claims 6, 7, 8:

13.   Parsa et al. discloses transmitting an acknowledgement signal from the system

to the mobile station to indicate that the desired CPCH is available, before transmitting

the CA-ICH (col. 8, lines 15-19, where the acknowledgement is sent in response to the

access preamble, hence before the channel allocation is set forth as done by

transmitting the CA-ICH, and this occurs before the channel assignment phase),

transmitting a collision detection preamble (CD-P) with a signature from the mobile

station to the system in response to the acknowledgement signal (col. 8, lines 40-43),

the signature mapping with at least one scrambling code (col. 6, line 50 where a

physical channel uses the same scrambling codes, thus scrambling codes are

associated with the channel, and thus associated with the signature), and determining if

a collision has occurred, when only one CD-P is received, transmitting a signature equal

to that of the received CD-P to the mobile station through a collision detection

acquisition indicator channel (CD-AICH) (col. 8, lines 45-48) and transmitting a

signature equal to that of the CD-P having the highest power among received CD-Ps

from the system to the mobile station through the CD-AICH (col. 8, lines 45-51, where

the CD-AICH signals are carefully chosen to effectuate a specific assignment of

available channels from the group to the n mobile stations, on an individual basis, hence

if a high power requirement is chosen for a particular group of channels, then that

mobile station can be chosen on an individual basis). Parsa et al. discloses wherein it is

determined that a collision has not occurred when only one CD-P is received

(corresponding to a particular channel in a particular group) (col. 8, lines 52-61, hence

no collision), and it is determined that a collision has occurred when more than one CD-

P is received (col. 10, lines 11-13).

Regarding claim 22:

14.   Parsa et al. discloses a method for allocating Common Packet Channels

(CPCHs), comprising receiving group information of a plurality of CPCHs from a system

(col. 6, lines 30-32), transmitting an access preamble (AP) which indicates a group to be

used (col. 7, lines 58-62) and a desired transmission rate in accordance with the

received group information (col. 6, lines 40-44, where the desired transmission rate can

be chosen from the available data rates made known), selecting at least one of the

plurality of CPCHs to be allocated in a group designated by the AP from the mobile

station (col. 7, lines 58-62) and transmitting a channel allocation indicator channel CA-

ICH (col. 6, lines 44-49, where the CSICH yields the status information of the CPCHs,

hence specify which can be allocated, and is associated with a physical channel used

for transmission of CPCH AP-AICH, which acknowledges thus helping to later lead to

the allocation of the CPCH), the CA-ICH comprising a signature mapped with

scrambling codes (col. 7, lines 58-62 and col. 6, line 50 where a physical channel uses

the same scrambling codes, thus scrambling codes are associated with the channel,

and thus associated with the signature (associated with the CSICH), and in order to

transmit multiple messages, scrambling codes corresponding to signatures must be

different so as know which message belongs to which CPCH), and transmitting a

message to the system through at least one corresponding physical channel in

accordance with the CA-ICH (once the CPCH has been allocated, transmission of the

message must occur on a physical channel and is in accordance to the CSICH, col. 6,

lines 44-49).

Regarding claim 23:

15.   Parsa et al. discloses wherein the AP is transmitted from the mobile station to the

system (col. 7, lines 49-53).

Regarding claims 28, 37:

16.   Parsa et al. discloses a method (and device) of allocating a common packet

channel resource of a communication system comprising selecting an available one of a

plurality of resource request signatures (col. 7, lines 58-62), and mapping the selected

resource request signature to a corresponding scrambling code to allocate a resource of

the communication system (col. 7, lines 58-62 and col. 6, line 50 indicates the use of

scrambling codes, where scrambling codes are associated with the channel, and thus is

associated with the signature).

Regarding claims 35, 43:

17.   Parsa et al. discloses wherein the resource request signature is selected from

among an access preamble (AP), a collision detection preamble (CD-P), a collision

detection indicator channel (CD-ICH), and a channel assignment indicator channel (CA-

ICH) (col. 7, line 58-67, where the AP signature indicates that the APs correspond to

particular CPCHs, hence the signature is selected from among the APs).

Regarding claim 36, 44:

18.   Parsa et al. discloses wherein the common packet channel is established

between at least one of a user equipment (UE) to a Universal Terrestrial Radio Access

Network (UTRAN) and a UTRAN to a UE (col. 6, lines 30-44, where the common packet

channel is to be established between a UE (user equipement) and BS (base station)).

Claim Rejections - 35 USC § 103

19.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set
forth in section 102 of this title, if the differences between the subject matter sought to be patented and
the prior art are such that the subject matter as a whole would have been obvious at the time the
invention was made to a person having ordinary skill in the art to which said subject matter pertains.
Patentability shall not be negatived by the manner in which the invention was made.

20.   Claims 2, 9, 10, 15, 16, 21, 24, 26, 27, 29, 30, 31, 38, 39, 40, 41, and 42, are

rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,480,525

(Parsa et al.) in view of the technical specification titled: "Universal Mobile

Telecommunications Systems (UMTS); Physical Layer Procedures (FDD)", 3G TS

25.213, as submitted by applicant.

Regarding claim 2:

21.   Parsa et al. discloses substantially all the claimed invention as specified above,

however, does not disclose expressly wherein each of the plurality of scrambling codes

for the CPCH has a one-to-one correspondence to an access sub-channel used by an

access preamble part of the CPCH.

        The technical specification discloses that scrambling codes used for the

message part have a one-to-one correspondence to the signature sequences and the

access sub-channels used by the access preamble part (pg. 15, section 4.3.2.6, lines 1-

3).

        A person of ordinary skill in the art would have been motivated to employ the

technical specification in Parsa et al. in order to have scrambling codes that have a one-

to-one correspondence to an access sub-channel used by an access preamble part of

the CPCH. At the time the invention was made, therefore, it would have been obvious

to one of ordinary skill in the art to which the invention pertains to combine the technical

specification with Parsa et al. (collectively Parsa et al.-technical specification) to obtain

the invention as specified in claims 1 and 2. The suggestion/motivation to do so would

have been to have scrambling codes that have a one-to-one correspondence to an

access sub-channel used by an access preamble part of the CPCH so that the

scrambling codes would be in conformance with technical specifications.

Regarding claims 9, 15, 24, 26, 29, 38:

22.   Parsa discloses a method for allocating common packet channels (CPCHs)

comprising transmitting status information of the CPCHs from a system to a mobile

station (col. 6, lines 30-32), selecting a specific CPCH to be used based on the status

information and generating (transmitting) an access preamble comprising a signature

indicative of the selected CPCH (col. 7, lines 58-62), and a maximum data rate (col. 6,

lines 40-44, where the available rate corresponds to the maximum rate), the signature

mapping with scrambling codes (col. 6, line 50 where a physical channel uses the same

scrambling codes, thus scrambling codes are associated with the channel, and thus

associated with the signature), transmitting a channel allocation indicator channel CA-

ICH (CSICH) (signal) of at least one of the plurality of CPCHs to be allocated from the

system to the mobile station (col. 6, lines 44-49, where the CSICH yields the status

information of the CPCHs, hence specify (by the system) which can be allocated, and is

associated with a physical channel used for transmission of CPCH AP-AICH, which

acknowledges thus helping to later lead to the allocation of the CPCH, and a maximum

data rate, col. 6, lines 40-44, where the available rate corresponds to the maximum

rate), and transmitting the AP containing the signature from the mobile station to the

system to request allocation of the specific CPCH (col. 7, lines 58-62), mapping a

collision detection preamble CD-P to prevent channel collision (col. 8, lines 40-43) by a

specific scrambling code set (col. 6, line 49 indicates the use of scrambling codes, and

since the the CPCHs can be allocated in a group, the scrambling codes can be chosen

from a scrambling code set) and transmitting the CD-P from the mobile station to the

system (col. 8, lines 40-48), selecting a scrambling code from the scrambling code set

designated by the CD-P transmitted from the mobile station and mapping the selected

scrambling code by a channel allocation indicator CA-ICH to transmit the scrambling

code to the mobile station (col. 6, line 49 indicates the use of scrambling codes, and

since the the CPCHs can be allocated in a group, the scrambling codes can be chosen

from a scrambling code set, and col. 6, lines 44-49, where CSICH is associated with the

CPCH AP-AICH and uses the same channelization and scrambling codes, hence the

same code indicated by the CD-P), and transmitting a message from the mobile station

to the system using at least one corresponding physical channel (once the CPCH has

been allocated, transmission of the message must occur on a physical channel and is in

accordance to the CSICH, col. 6, lines 44-49, and since each CA-ICH is associated with

a scrambling code, the message is transmitted using this code). However, Parsa et al.

does not disclose expressly a minimum spreading factor of the specific CPCH, and

where the signature mapping with scrambling codes having a channelization OVSF

code tree in a message part of the specific CPCH, and a channelization code of a data

part and a control part in the message part being selected in the code tree.

The technical specification discloses channelization codes are described by the

spreading factor (see section 4.3.1.1, where a minimum can be seen as SF=1) and a

channelization OVSF code tree, where the channelization code part of a data part and a

control part being selected in the code tree (see section 4.3.1.1. through section

4.3.1.4).

A person of ordinary skill in the art would have been motivated to employ the

technical specification in Parsa et al. in order to use signatures mapping with scrambling

codes (corresponding to APs and CA-ICHs) having a channelization OVSF (spreading

factor) code tree in a message part of the specific CPCH and a channelization code of a

data part and a control part in the message part being selected from the code tree. At

the time the invention was made, therefore, it would have been obvious to one of

ordinary skill in the art to which the invention pertains to combine the technical

specification with Parsa et al. (collectively Parsa et al.-technical specification) to obtain

the invention as specified in claims 9, 15, and 24. The suggestion/motivation to do so

would have been to use the OVSF (spreading factor) codes so as to preserve the

orthogonality between a user's different physical channels (see section 4.3.1.1, first

sentence).

Regarding claim 10:

23.   Parsa et al. further discloses wherein the mobile station maps signatures of the

CPCHs that can be serviced by the system with different scrambling codes (col. 7, lines

58-62 and col. 6, line 50 where a physical channel uses the same scrambling codes,

thus scrambling codes are associated with the channel, and thus associated with the

signature, and in order to transmit multiple messages, scrambling codes corresponding

to signatures must be different so as know which message belongs to which CPCH).

Regarding claim 16:

24.   Parsa et al. further discloses wherein the system maps respective signatures of

the CA-ICH (CSICH) with different scrambling codes (col. 7, lines 58-62 and col. 6, line

50 where a physical channel uses the same scrambling codes, thus scrambling codes

are associated with the channel, and thus associated with the signature (associated

with the CSICH), and in order to transmit multiple messages, scrambling codes

corresponding to signatures must be different so as know which message belongs to

which CPCH).

Regarding claim 21:

25.   Parsa et al. discloses wherein the mobile station selects the desired CPCH and

transmits the AP to the system (col. 7, lines 29-32 and col. 7, lines 58-62).

Regarding claim 25:

26.   Parsa et al. discloses wherein signatures of the CD-P are one-to-one mapped

with the scrambling code sets in accordance with a number of the scrambling code sets,

or two signatures are mapped to indicated a specific scrambling code set (col. 7, lines

58-62 and col. 6, line 50 where a physical channel uses the same scrambling codes,

thus scrambling codes are associated with the channel, and thus associated with the

signature, where a signature is associated with a CD-P, and since the CPCHs can be

allocated in a group, the scrambling codes can be chosen from a scrambling code set).

Regarding claim 27:

27.   Parsa et al. discloses wherein each signature of the CA-ICH is one-to-one

mapped with the scrambling code sets in accordance with a number of the scrambling

code sets, or a plurality signatures are mapped to indicate a specific scrambling code

set (col. 7, lines 58-62 and col. 6, line 50 where a physical channel uses the same

scrambling codes, thus scrambling codes are associated with the channel, and thus

associated with the signature, where a signature is associated with a CSICH, and since

the CPCHs can be allocated in a group, the scrambling codes can be chosen from a

scrambling code set).

Regarding claims 30, 31, 39, 40:

28.   Parsa et al. discloses substantially all the claimed modified invention as

specified above, however, does not disclose expressly wherein a channelization code

for a control part is spread by a code $C_c = C_{256,0}$, and wherein a data part is spread by a

code $C_d = C_{SF,k}$, and wherein SF is the spreading factor of the data part, and wherein

k=SF/n, wherein n is an integer greater than 0.

The technical specification discloses the control part is always spread with a

channelization code of spreading factor 256 and the code is chosen from the lowest

branch of the sub-tree. The data part may use channelization codes from spreading

factor 4 to 25 and a UE is allowed to increase its spreading factor during the message

transmission by choosing any channelization from the uppermost branch of the sub-tree

code. $C_d = C_{SF,k}$ where k = SF/4 (hence n = 4) is also disclosed. (see sections 4.3.1.2,

4.3.1.3, and 4.3.1.4).

A person of ordinary skill in the art would have been motivated to employ the

technical specification in Parsa et al. in order to have channelization codes for the

control and data parts to be spread according to standards. At the time the invention

was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine the technical specification with Parsa et al. (collectively Parsa et al.-technical specification) to obtain the invention as specified in claims 28, 29, 30, and 31 and in claims 37, 38, 39, and 40. The suggestion/motivation to do so would have been to have channelization codes for the control and data parts to be spread in conformance with technical specifications.

Regarding claims 32, 33, 34, 41, 42:

29.   Parsa et al. discloses substantially all the claimed invention as specified above, however, does not disclose expressly wherein a channelization code for a control part is spread by a code $C_{256, 128}$, and wherein a data part is spread by a code $C_{SF, 3 \cdot SF/n}$, and wherein SF is the spreading factor of the data part, and wherein n is an integer greater than 0, and where a selected branch of the OVSF code tree is followed from one of node $C_{2,0}$ and node $C_{2,1}$ having a spreading factor of 2.

The technical specification discloses the channelization code for a control part is spread by a channelization code of spreading factor 256 (see section 4.3.1.4), and wherein a data part can be spread by a code $C_{ch, SF, k}$, where $k = v_d \cdot SF/L$, where L can be 4 (an integer greater than 0) (see section 4.3.1.2). Also, a selected branch of the OVSF code is can be followed from one of node $C_{2,0}$ and node $C_{2,1}$ having a spreading factor of (see section 4.3.1.1., where SF = 2 for nodes $C_{2,0}$ and $C_{2,1}$).

A person of ordinary skill in the art would have been motivated to employ the technical specification in Parsa et al. in order to have channelization codes for the control and data parts to be spread according to a particular manner in the OVSF code

tree. At the time the invention was made, therefore, it would have been obvious to one

of ordinary skill in the art to which the invention pertains to combine the technical

specification with Parsa et al. (collectively Parsa et al.-technical specification) to obtain

the invention as specified in claims 28, 29, and 32, in claim 28, 29, 32, and 33, and in

claims 28, 29, 32, and 34. The suggestion/motivation to do so would have been to

spread the codes for the data and control parts using an OVSF code tree, which

corresponds to technical specifications in preserving the orthogonality between a user's

different physical channels.

Conclusion

30.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

> *Parsa et al. discloses a hybrid DSMA/CDMA method with collision resolution
>
> > for packet communications
>
> *Jung et al. discloses a device and method for transmitting common channel
>
> > message in a CDMA communication system
>
> *Dick et al. discloses a base station for code assignment for a common packet
>
> > channel
>
> *Kanterakis et al. discloses a common packet channel
>
> *Lee et al. discloses a device and method for assigning spreading code for
>
> > reverse common channel message in CDMA communication system
>
> *Choi et al. discloses an apparatus and method for assigning a common packet
>
> > channel in a CDMA communication system

*Choi et al. discloses an apparatus and method for allocating channel using

OVSF code for uplink synchronous transmission scheme in a W-CDMA

communication system

31.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Brad T. Mace whose telephone number is (571) 272-

3128. The examiner can normally be reached on Monday -Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

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Brad T. Mace
Examiner
Art Unit 2663

btm
September 8, 2004

RICKY NGO
PRIMARY EXAMINER